Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method comprising:

administering, to a subject with cancer, a composition comprising at least one ligand for a pattern recognition receptor and a delivery vehicle comprising a liposome, wherein said liposome is a positively charged liposome~~; a negatively charged liposome; or a neutral liposome; and exposing said subject to radiation~~.

2. (Previously Presented) The method of claim 1, wherein said pattern recognition receptor comprises a signaling pattern recognition receptor.

3. (Previously Presented) The method of claim 2, wherein said signaling pattern recognition receptor comprises a mannan-binding lectin, a macrophage mannose receptor, a scavenger receptor, or at least one Toll-like receptor (TLR) selected from the group consisting of: TLR-1, TLR-2, TLR-3, TLR-4, TLR-5, TLR-6, TLR-7, TLR-8, TLR-9, TLR-10, TLR-11 and TLR-12.

4. (Previously Presented) The method of claim 3, wherein said signaling pattern recognition receptor comprises TLR-2, TLR-3 and/or TLR-9.

5. (Previously Presented) The method of claim 1, wherein said pattern recognition receptor comprises an endocytic pattern recognition receptor or a scavenger receptor or a mannose-binding receptor.

6. (Previously Presented) The method of claim 1, wherein said administering step modulates an immune response in said subject.

7. (Previously Presented) The method of claim 6, wherein modulating said immune response comprises augmenting said immune response.

8. (Withdrawn) The method of claim 6, wherein modulating an immune response comprises down regulating an immune response.

9. (Canceled).

10. (Previously Presented) The method of claim 1, wherein said cancer comprises one or more cancers selected from the group consisting of: lung cancer, skin cancer, liver cancer, bone marrow cancer, leukemia, ovarian cancer, breast cancer, prostate cancer, colon cancer, lymphoma, brain cancer, renal cell cancer, and cancer of a mesenchymal tissue.

11-18. (Canceled).

19. (Withdrawn) The method of claim 6, wherein modulating an immune response comprises modulating an immune response in a subject disposed of a disease due to abnormal production of proteins in the body.

20-30. (Canceled).

31. (Currently Amended) A method of inducing an immune response in a subject with cancer and exposed to radiation comprising:

administering to said subject a composition comprising a ligand for a pattern recognition molecule family of receptors; and

a delivery vehicle comprising a liposome, wherein said liposome is a positively charged liposome; ~~a negatively-charged liposome; or a neutral liposome;~~ wherein said ligand is complexed to or within the delivery vehicle, and wherein administrating said composition induces said immune response in said subject.

32. (Previously Presented) The method of claim 31, wherein inducing said immune response comprises inducing an innate immune response.

33. (Previously Presented) The method of claim 32, wherein the innate immune response comprises a response by macrophages, neutrophils, natural killer (NK) cells, or dendritic cells, or any combination thereof.

34. (Canceled).

35. (Previously Presented) The method of claim 31, wherein the ratio of liposome to ligand comprises about 1:1 to about 100:1mmol liposome to mg ligand.

36. (Previously Presented) The method of claim 31, wherein said ratio of liposomes to ligand is about 16:1 or about 8:1mmol liposome to mg ligand.

37-38. (Canceled).

39. (Previously Presented) The method of claim 34, wherein said positively charged liposome is complexed to said ligand for the pattern recognition molecule family of receptors.

40. (Previously Presented) The method of claim 31, wherein said liposome consists of a mixture of charged and neutral lipids of DOTIM (1-(2-(oleoyloxy)ethyl)-2-oleyl-3-(2-hydroxyethyl)imidazolinium) and cholesterol in a 1:1 molar ratio.

41. (Canceled).

42. (Previously Presented) The method of claim 31, wherein the delivery vehicle further comprises at least one component selected from the group consisting of: polypeptides, polyamines, chitosan, PEl, polyglutamic acid, protamine sulfate, and microspheres.

43. (Previously Presented) The method of claim 34, wherein said ligand comprises a toll like receptor (TLR) ligand.

44. (Previously Presented) The method of claim 43, wherein the TLR ligand comprises a nucleic acid molecule.

45. (Previously Presented) The method of claim 43, wherein said TLR ligand comprises a nucleic acid molecule from a bacterium.

46. (Canceled).

47. (Previously Presented) The method of claim 43, wherein the TLR ligand comprises a nucleic acid molecule from a fungal organism.

48-49. (Canceled).

50. (Previously Pesented) The method of claim 43, wherein the TLR ligand comprises a nucleic acid molecule from a multicellular organism.

51. (Previously Presented) The method of claim 43, wherein the TLR ligand comprises a nucleic acid molecule from a unicellular organism.

52. (Previously Presented) The method of claim 34, wherein said ligand comprises at least one of a glycoprotein, lipoprotein, glycolipid, carbohydrate, lipid, nucleic acid and/or protein or peptide sequence derived from any portion of a bacterial pathogen.

53-54. (Canceled).

55. (Previously Presented) The method of claim 31, wherein said ligand comprises a glycoprotein, lipoprotein, glycolipid, carbohydrate, lipid, nucleic acid and/or protein or peptide sequence derived from any portion of a fungal organism.

56. (Previously Presented) The method of claim 31, wherein the ligand comprises a glycoprotein, lipoprotein, glycolipid, carbohydrate, lipid, nucleic acid and and/or protein or peptide sequence derived from any portion of a viral organism.

57. (Previously Presented) The method of claim 31, wherein the ligand comprises a glycoprotein, lipoprotein, glycolipid, carbohydrate, lipid, nucleic acid and and/or protein or peptide sequence derived from any portion of a rickettsial organism.

58. (Previously Presented) The method of claim 31, wherein the ligand comprises a glycoprotein, lipoprotein, glycolipid, carbohydrate, lipid, nucleic acid and and/or protein or peptide sequence derived from any portion of a parasitic organism.

59. (Previously Presented) The method of claim 31, wherein the ligand comprises a glycoprotein, lipoprotein, glycolipid, carbohydrate, lipid, nucleic acid and and/or protein or peptide sequence derived from any portion of an arthropod organism.

60. (Previously Presented) The method of claim 31, wherein said ligand comprises a nucleic acid encoding a TLR ligand.

61. (Previously Presented) The method of claim 60, wherein said nucleic acid comprises at least one molecule selected from the group consisting of: eukaryotic DNA, eukaryotic dsDNA, eukaryotic ssDNA, a synthetic oligonucleotide, eukaryotic RNA, and synthetic RNA.

62. (Previously Presented) The method of claim 61, wherein said oligonucleotide comprises at least one of poly I:C or related poly I:C oligonucleotides.

63. (Previously Presented) The method of claim 31, wherein said ligand is a mixture of two or more different TLR ligands in ratios sufficient for eliciting an immune response.

64. (Previously Presented) The method of claim 31, wherein said ligand consists of any molecule that associates with and/or stimulates a pattern recognition receptor.

65. (Previously Presented) The method of claim 31, wherein said ligand comprises a synthetically generated ligand that binds to and stimulates a pattern recognition receptor.

66. (Previously Presented) The method of claim 31, wherein said composition further comprises a molecule with a steroid backbone.

67. (Previously Presented) The method of claim 60, wherein said composition further comprises a DNA condensing agent.

68. (Previously Presented) The method of claim 67, wherein the DNA condensing agent is polyethylenimine (PEI).

69-84. (Canceled).

85. (Previously Presented) The method of claim 1, wherein said administering comprises delivery by a route selected from intravenously, intraperitoneally, by inhalation, subcutaneously, intradermally, intranodally, intramuscularly, intranasally, orally, rectally, intravaginally, intravesicularly, intraocularly, and topically.

86. (Previously Presented) The method of claim 1, further comprising augmenting an immune response in a subject having cancer.

87. (Previously Presented) The method of claim 86, wherein the cancer comprises at least one cancer selected from the group consisting of: lung cancer, skin cancer, liver cancer, bone marrow cancer, ovarian cancer, breast cancer, prostate cancer, colon cancer, lymphoma, brain cancer, renal cell cancer, and cancers of mesenchymal tissues.

88-111. (Canceled).

112. (Currently Amended) A method of treating a cancer in a subject in need of treatment for said cancer comprising:

administering to said subject a composition comprising at least one ligand for a pattern recognition receptor and a delivery vehicle comprising a liposome, wherein said liposome is a positively charged liposome; ~~a negatively charged liposome; or a neutral liposome;~~ and administering to said subject a radiation therapy wherein said composition elicits an immune response in said subject, thereby treating said cancer in said subject.

113. (Previously Presented) The method of claim 112, further comprising administering at least one additional therapy selected from the group consisting of: hyperthermia therapy, chemotherapy, photodynamic therapy (PDT), surgery, ultrasound, and focused ultrasound.

114. (Previously Presented) The method of claim 112, wherein the order of administering the radiation therapy generates different responses.

115. (Previously Presented) The method of claim 112, wherein said radiation therapy is administered to said subject before administering said composition.

116. (Previously Presented) The method of claim 112, wherein said radiation therapy is administered to said subject after administering said composition.

117. (Previously Presented) The method of claim 112, wherein said radiation therapy is administered to said subject concurrently with the administration of said composition.

118. (Original) The method of claim 112, wherein the pattern recognition receptor ligand comprises a nucleic acid molecule.

119. (Original) The method of claim 112, wherein the pattern recognition receptor ligand comprises bacterial DNA.

120-151. (Canceled).

152. (Previously Presented) The method of claim 1, wherein the order of administering the radiation therapy generates different responses.

153. (Previously Presented) The method of claim 1, wherein the radiation is administered before said composition.

154. (Previously Presented) The method of claim 1, wherein the radiation is administered after said composition.

155. (Previously Presented) The method of claim 1, wherein the radiation is administered concurrently with said composition.

156. (Previously Presented) The method of claim 1, wherein the ligand comprises a synthetic compound capable of binding a pattern recognition receptor.

157. (Withdrawn) The method of claim 156, wherein the synthetic compound comprises immadazoquinoline.